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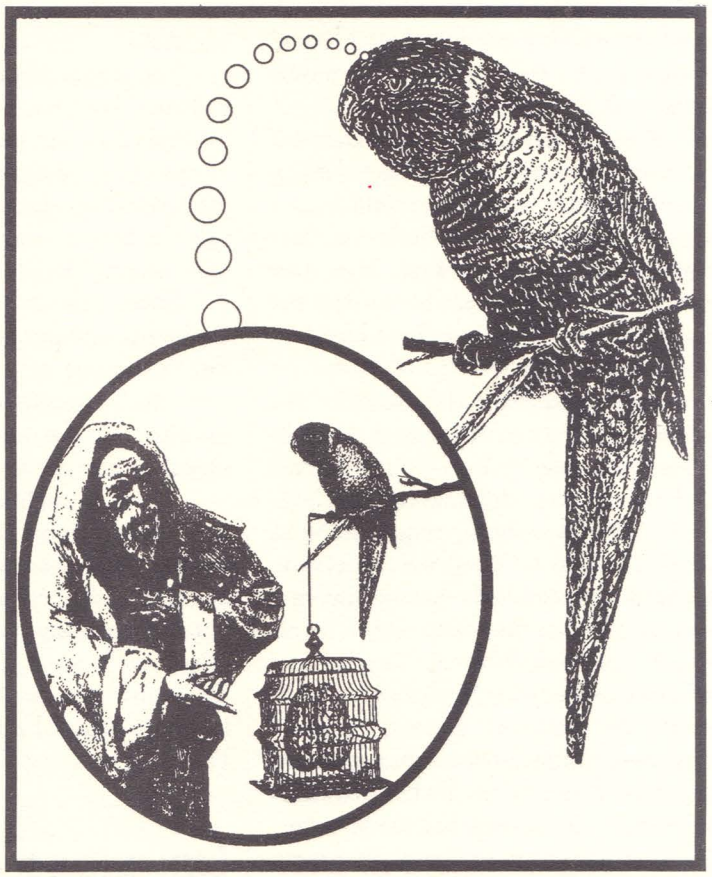
Who Communicates



I've been thinking awhile now, about writing a general statement on the subject of interspecies communication. Several recent letters requested such a statement, and made it happen. This essay is the result. Also, I offer a humble thank you to all members. both new and renewed. Our membership is currently at the highest level its been seen 1991. Please keep 'em coming. Tell a friend.

For hundreds of years now, somewhere in the world, some mother has revealed to her child tucked in bed the words Little Red Riding Hood exclaimed to the wolf in disguise: "Grandma, what big ears you have!" By such mythical stories we teach our children–at their most impressionable age, no less–that human beings communicate with the animals. The pigs and chickens, the monkeys and the frogs and of course the wolves all comprehend our vocabulary, our grammar. In France the animals speak French. In the Philipines they converse with us in Tagalog. The animals have their leaders and their philosophers. They can be scrupulous or corruptible, compassionate, cloying, priggish, Christ-like, Machiavellian. Their numbers include not only the various species, but also fools and philosophers, heroes, wicked villains, legendary beauties, long-suffering parents, bumbling side-kicks. They are just like us. Individuals. The best and worst.

Then Babel. The child who listened intently to our bedtime stories enters grade school. She learns how large a place the world is. One day a more worldly child might divulge to her that the cherished Easter Bunny is a ruse. Something clicks. The child approaches her parents seeking the truth. They level with her. Perhaps appeal to the child's newfound common sense. Could a real bunny make home deliveries of colored chicken eggs to half a billion children?

In such a way, the mythic bubble of childhood is broken. Wolves don't dress up like grandmothers. Horton the elephant never heard a Who. Winnie the Pooh didn't comfort Christopher Robin with Taoist musings. Tom and Jerry and Donald Duck are slapstick comedians dressed up in animal costumes. Large African mammals don't sing *The Circle of Life*. Elton John sings it.

Children have no trouble accepting change. They are open vessels who try on new worldviews as readily as you and I change shoes. By the end of grade school they all endorse what amounts to a less kindred vision of nature. That word, *kindred*, reveals everything; it's root is the old English word for child. Now, perhaps too quickly, education turns earnest. The notion of a natural world brimming with conscious, engaged beings, all conversing with one another, loses its pre-school primacy.

But one crucial aspect of the kindred worldview always seems to escape the pogrom of the educational process. Those three and four year old bedtime listeners grow up to have children of their own. One day, the same little girl who, long ago, questioned her parents about the Easter bunny, now finds herself sitting on the edge of another bed telling her own child what it was the wolf spoke in answer to Little Red Riding Hood. In such a manner, myth remains myth. It spans the generations, doggedly fulfilling its job of grounding a deeper, more mysterious, and certainly more elusive truth about life than science, ethos, or even common sense is able to validate. The wolf keeps grinning. He never stops confirming

Little Red Riding Hood's own observations about him. He leans close, lears, perhaps drools. Speaks. "All the better to hear you with, my dear."

Cognitive scientists tell us that real animals communicate to one other although the subject matter is generally limited to signals that express danger, territory, and courtship. A dog growls at a perceived threat, a toad croaks at dusk, a male bird of paradise clings to a branch upside down and displays its luxurious tail feathers to an admiring female. It's mostly instinctual. But not always.

There are a few instances in nature of communication as learned behavior. A dog can be trained to bark at a deer, but not at a sheep. Redwing blackbirds possess regional accents they pick up from their parents. A blackbird from Maine does not respond positively to the call of a blackbird from New Jersey.

Baby orcas learn discrete calls that make up *dialects* that vary from pod to pod. Orca researcher, John Ford, discovered that when orcas physically interact with one another, chasing, nipping, pushing, so forth–the kind of thing we call play in humans–they emit calls that are seldom if ever repeated in the same form. In his recent book, *Gone Whaling*, Douglas Hand asks orca expert, John Ford, if such sounds might be construed an expression of creative sound making, for instance could there be a killer whale Miles Davis, willfully inventing riffs no orca has made before? Ford' answer was ungenerous, yet it spoke volumes about science's blindness to animal sentience. "They learn dialects. Those are facts. Or 95 percent facts. But creative? No."

Cognitive scientists have, so far, failed to discover any evidence of syntax, inflection, or vocabulary in cat purring, dog barking, or even dolphin whistling. They conclude that there is no language *per se* outside the human realm, which explains why researchers refer to their field of study as zoosemiotics (animal signaling) rather than zoolinguistics (animal language).

There are exceptions to the rule. Perhaps curiously, some of the most intriguing examples of complex animal communication occur within species that stand relatively low on the evolutionary scale.

The best known example may be the honey bee's waggle dance first observed by Karl von Frisch in the 1940's. Von Frisch established that their dance (which is an art form) communicates sun position (astronomy), a system of measure (mathematics) and precise direction (navigation). It even communicates the desirability of the food source (suggesting a syntax composed of adjectives and adverbs).

The waggle dance is not only utilised to locate food, but even to pinpoint the location of a water source to cool an overheated hive (thermodynamic engineering?). Another version of the waggle dance tells the bees to commence a once-in-lifetime swarm. "Enjoin together," declaims the dancer, "Let us form into a unit, leave the hive but protect the queen, and search for a new tree cavity with all the right attributes." mysteriously, of all the bees in the hive, only the queen was alive the last time this dance were executed.

Those researchers who try to explain this phenomenon in terms of simple instinct, make it sound vaguely analogous to a human child emerging from the womb not only cerebrally and physically prepared to acquire language, but also possessed of the syntax and vocabulary of a specific language. French babies speaking French, Philipinos speaking Tagalog.

Language as Movie

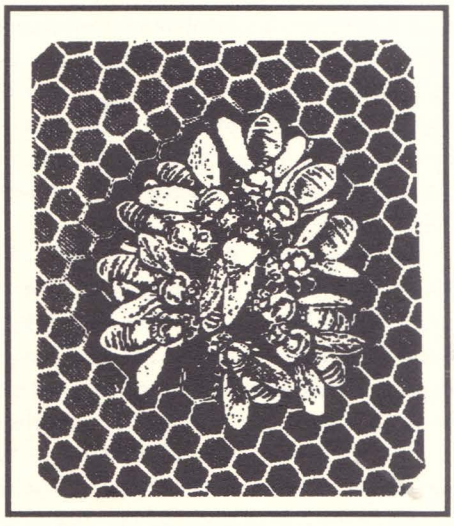
In 1980 biologists, Tom Struhsaker, Robert Seyfarth, Dorothy Cheney, and Peter Marler discovered that vervet monkeys in Kenya possess a vocabulary denoting the various predators in their life. A certain grunt is the actual *word* for eagle. When the grunt is vocalized, the vervets start scanning the sky. A bark means leopard, prompting the monkeys to scamper to the top of a tree.

Since the initial discovery of this proto-language, human comprehension of the vervet dictionary has expanded to include several other grunts and chatters expressing territoriality, kinship, and social standing. When a vervet infant screams out the word signifying a certain predator, only its mother responds directly. All the other monkeys respond instead, to the mother, recognizing who's baby it is in distress. What all these sounds have in common is their symbolic nature –one more thing formerly thought unique to human communication.

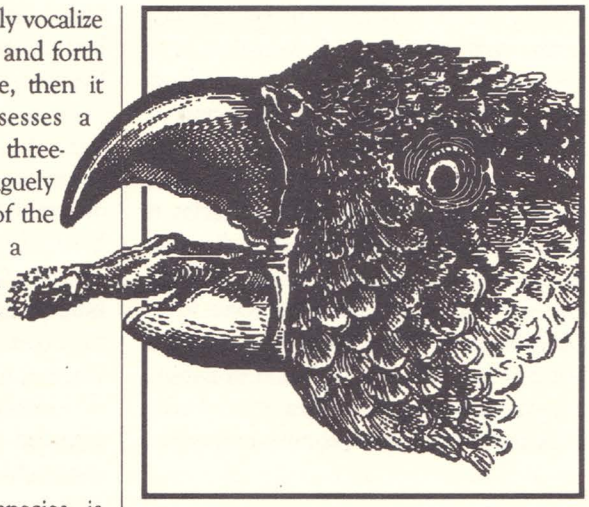
Male humpback whales sing profoundly enigmatic songs of a rich texture, ostensibly for purposes of courtship. The structure of a song evolves from year to year. A song can last as long as twenty minutes. When the male completes his song, he may repeat it again verbatim, including all the subtle shifts in melody, rhythm and timbre. Roger Paine, who first analysed humpback songs, has speculated that they suggest an epic poem of Homeric sophistication, perhaps communicating the lineage of the singer.

Toothed whales may have taken communication into an entirely different realm. They developed echolocation as a means of perceiving their world. A staccato burst of clicks bounces off a fish and echoes back to the whale through receptors in the jaw. The animal analyzes the echo as a three-dimensional image possessing a certain shape, material, density and distance.

Recent evidence suggests that the sperm whale may have taken echolocation to another level. Unlike its smaller cousin the dolphin, sperm whales do not also whistle as a means of signalling simple concepts like identity, distance, and alarm between members of their own immediate pod. Instead, sperm whales click back and forth to one another. Some researchers



conjecture that the whales actually vocalize the content of their echoes back and forth among one another. If it's true, then it implies that the species possesses a spoken language composed of three-dimensional sonic holograms, vaguely analogous to the word-pictures of the Chinese alphabet. It implies a complex language closer in form to a movie than a series of sound-concepts.



Flirting

Communication *between* species is not unknown in nature. The alarm call of a robin attracts not only other robins, but also blue jays, orioles, and catbirds, who help drive off the predator. This occurs, not as an expression of some innate sense of altruism, but because certain alarm calls mean the same thing to various bird species. The implicit stress communicated by that particular call overrides any perception of territoriality among species.

Communication between human beings and other species is a more knotty issue. No one denies, for instance, that a dog is capable of communicating his immediate needs to us. He can tell us he needs food or wants to go out in the rain. Dr. Michael W. Fox informs us that dogs are, in fact, masters of non-verbal interspecies communication. They ascertain as much about human happiness, submission, and aggression by reading our postures and expressions as we learn about them from watching their tails wag, their ears lay back, and their necks bristle.

But there is no cause-and-effect dialogue attached to it beyond an affectionate pat on the dog's back by us, a snarl issued to an aggressive stranger by them. In other words, replicable sounds and movements do not represent symbolic ideas. A dog can not tell us why he prefers certain food, or if he prefers a certain season of the year over all others. Beyond the stereotypical dogged quality of unconditional love–as exemplary an expression of loyalty that exists in nature–no dog is capable of telling us why he loves us. The human/dog lexicon of facial expressions and bristled napes does not include abstract ideas like *usefulness*, *generosity*. No dog can ask us to feed it tomorrrow.

Science has long flirted with the idea that certain species can be taught something more abstract than simple commands and concepts fulfilling immediate needs. But this field is wrought with controversy.

The Establishment's reaction against interspecies communication is a result of it being a subject borne of children's stories, aboriginal myth, anthropomorphism– anything but the detached collection of data. The field is downright surrealistic, influenced as much by our dreaming as by our observation. To confront the study of interspecies communication is to resurrect a long-lost gut feeling from our own childhood, the end of the world as we once lived it, the permanent loss of kinship, the advent of the objective revelation.

That explains why this subject tends to attract visionaries, Utopians, and dreamers. One result is a scientific field of study tainted by an inherent, and some believe, insurmount-able problem of credibility. Even the most unavoidable conjecture, for instance the above interpretation of sperm whale clicks, is vulnerable to the harshest claims of outright fraud from the field's many critics.

Nonetheless, the field grows. Researchers continue to marvel, for instance, at how quickly bottlenose dolphins learn the tricks taught them in oceanarium shows, and then improvize variations that further please their audience.

Yet even with the large-brained mammals, dolphins, gorillas and chimps, the interface between species remains annoyingly opaque. It has been suggested that researchers have failed to do a better job plumbing the intelligence of large-brained mammals because they don't have a clue how to test it.

Most scientific attempts at communication between species seem stuck in the anthropocentric presumption that if a another creature is truly intelligent it will be reflected in a linguistic ability similar to humans. If we can't fit the sounds made by another animal into the structure we have developed, we simply don't credit them with language. Its's just a short step from there to not giving animals credit for intelligence or even conscious thought.

Alex the Great

It sounds oddly anticlimactic to learn that the scientific method may have experienced its greatest success teaching English to a parrot. Alex, an African Gray Parrot under the tutelage of professor Irene Pepperberg could identify seven colors, five shapes, forty objects, and numbers up to six, all in spoken English. When Pepperberg showed Alex a green bottle and a green hat, and then asked him what was the same about them, he predictably answered "green". Asked the difference, he answered "shape".

Pepperberg believed that the most conspicuous aspect of Alex's achievement was not the precision of his response, but the fact that he clearly comprehended the abstract lingual concept of questions and answers. Pepperberg turned mum, however, when asked if she had an inkling of what Alex the parrot was actually thinking. Like John Ford disavowing creativity in orcas, she insisted that opinions about animal talents had to be substantiated by the data. Thoughts about entience were evidently outside the realm of her data.

Webster's defines the word sentience as "the capacity for feeling or perceiving consciousness." A few people believe that beside humans, only the great apes exhibit sentience and, at that, merely the the barest rudiments of self-awareness.

Unfortunately, an examination of the criteria scientists currently use to test sentience in animals seems naive if not inept. A researcher anasthetizes an animal, and then marks a spot that would only be visible when the animal looks in a mirror. The animal is considered self-aware if it reaches to touch the mark on itself rather than on the mirror. Much fanfare resulted in 1991, when the Hawaiian-based *Project Delphis* finally got a bottlenose dolphin to pass the test. By doing so, the species achieved the dubious distinction of becoming the first non-ape to attain science's very limited sentient list.

One might be more generous about the criteria, and assume that there can be no language without the rudiments of sentience also being present. But if that's true, then Alex's success amounts to a cognitive heresy. It suggests that the neural threshold beyond which consciousness suddenly springs into existence is not limited to beings with human-sized brains. But if that's true, then the long established scientific theory correlating intelligence with brain size is bogus. Still, no researcher has yet been willing to take a stab at explaining Alex's ability to speak English other than to acknowledge that a parrot with a pea-sized brain possesses vocal cords capable of forming English words, whereas large-brained gorillas and dolphins do not.

Alex's talent in a pea-sized package actually leads us in a far more provocative direction. His success suggests, at the very least, that we may have been too hasty to preclude other, less vocal species from the list. If a parrot displays sentience, then the potential for sentience may exist in all the other pea-brains as well. But why stop there? If a pea-brained parrot seems capable of displaying just about as much sentience as a dolphin possessed of a brain larger than a human being's, perhaps beings with commensurately smaller brains than a parrot's—millipedes, octopi, even oak trees and slime molds—may be sentient as well. Alex's success could just as easily imply that, in fact, many species have the potential to communicate. Plant and animal alike.

Although this line of reasoning seems to lead us right back into the world of children's fable where froggy goes a courtin' and the diligent ant gets the last laugh, in fact it gibes well with almost all pre-industrial views of nature. For those who prefer a more modern interpretation, the well-known Gaia Hypothesis asserts that some, as yet unknown communication linkage among species is responsible for stabilizing the chemical composition of the Earth's atmosphere over the past billion years. For Gaia to be true, communication would have to be the norm rather than the exception in nature. Everything that lives is connected. Everything that is connected, communicates.

Charley Parker

Whatever the truth about Gaia, Alex's success still does not explain why the communication results of large-brained toothed whales—dolphins, orcas, pilot whales, beluga whales—remain less manifest than a parrot's. Some assert that dolphin behavior simply does not include an ability to excel at human-derived tests. Dolphins in captivity have neither the desire nor the patience to persevere at any rational, repetitive, and objectivist regimen.

In the wild, however, they seem eager to communicate with human beings. The history of human/dolphin interaction goes back at least as far as the ancient Greeks. As I write, various dolphin species are interacting with human beings on a regular basis in many places around the world including the Bahamas, Hawaii, and Japan. And as you read this newsletter, a group from IC is busy swimming and improvizing music with a group of very responsive pilot whales in the Canary Islands. This organization is in touch with many such projects. We are always receiving reports from people who swim with cetaceans and conclude that the nonverbal communication exchanged has transformed their lives.

For twelve years, IC sponsored an attempt to communicate with wild orcas. Each year we anchored a boat in the same little cove located off the northeast coast of British Columbia. We chose our spot carefully. It was located far enough off the main strait that the orcas would need to come to the boat if they sought interaction. An underwater recording studio was installed. Improvizational music was our medium. Every night at the same time various people onboard transmitted their sounds into the water. Musicians logged up to fifty hours of interactions each summer. We eventually discovered that most of what we initially believed to be human/orca dialogue was actually the result of skillful musicians mimicking orca whistles. In other words, the orcas would make those same sounds whether we were present or not.

However, each summer we also recorded five to ten minutes of sparkling communication between species. On one occasion it took the form of several whales responding in unison to one note in a classical Indian Raga played on an electric guitar. In another case, an orca initiated a melody and a rhythm over a blues progression, emphasizing the chord changes. By the way, the best of these musical exchanges can be found on our cassette, *Orcas Greatest Hits*.

Since the whales communicated to us skillfully over brief periods of time, it seemed likely to us that they could do it anytime they wished. Most of the time they simply weren' t interested.

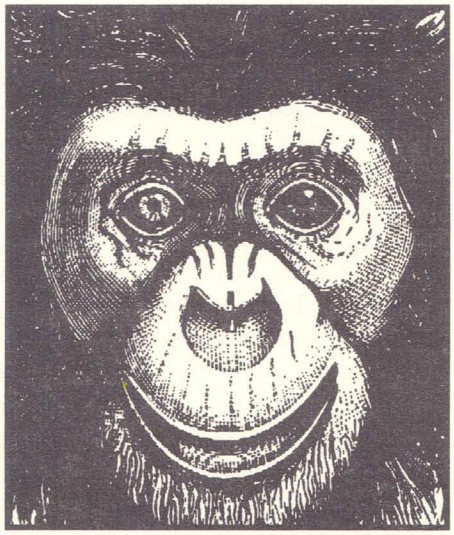
Those fleeting moments caused IC to return to the whales each year, again and again. We eventually discovered that the whales have their musicians just as humans do. It was never *the whales* interacting with us but rather two whales, specifically a mother and her teenage son out of a population of nearly two hundred in the area who came around to our boat nearly every night for years. The mother initiated contact and then nurtured it. Over time, her son developed into an inspired soloist. He possessed a whistle that writhed and sometimes soared. To the musicians onboard, the fluid density of his melodies was reminiscent of a Charley Parker solo.

The orca is the largest member of the dolphin family. For that reason, it seems plausible to assume that the observations we made with the orcas are, in certain respects, germane to the many captive communication experiments done with other dolphin species. If a group of imaginative but non-controlling musicians played for fifty hours each summer and yet, only succeeded in coaxing five minutes of

orca-initiated interaction from two out of two-hundred free-swimming orcas, what does that bode for researchers who impose tests on just one or two captive dolphins. Success and failure at their captive and objectivist game may simply be the result of a lack of interest on the animal's part.

But to acknowledge that idea is to void the most ingrained ideas about the objectivist game. It signifies that animals are more than members of a species. They are also individuals. They display unique personalities, eccentricities, even talents. It implies that researchers of dolphin language experiments might fare better if they held auditions for their tests. They might get better results if they first established a field of kinship and co-creation with their animal subjects. Collaboration. Equality. Unfortunately, the semantics of all these words and phrases makes a strong case against captivity.

Of all captive animals, perhaps Koko the gorilla has come the closest to letting us see inside herself. It is not coincidental that her trainer, Penny Patterson, has likewise taken the greatest leap at relating to her charge with genuine kinship and with an impeccable sense of collaboration. But what are the signs of Koko's sentience? In fact there are many. Most of them are socially-oriented and emotionally-based. For instance, Koko adopted a cat as a beloved pet and turned distraught when it died. Or Koko learned to fib, which in effect meant that she used sign language to distort her keeper's perception of reality. Or the most famous example: when asked by a journalist if she was an animal or a person, Koko's instant response was "Fine animal gorilla."



Yet even Penny Patterson's benign research is no less free of the criticism that sticks to so many of the studies in interspecies communication. Animal Rightists have recently gotten into the act. They argue that the laboratory version of the dream of interspecies communication is a nightmare for the non-human subjects who find themselves snared in the medium of captivity. The tests are merely human tests geared for the human senses and sensibilities. Animals go to school where a fixed period every day is set aside for teaching a regimen of numbers and colors and concepts. Every aspect of their life, including feeding, friendship, defecation, and environment, is controlled by a keeper. One result, in the words of animal rights philosopher, Michael Fox is that "a lot of people confuse intelligence with trainability. I turn it all around and say, there's no one more intelligent at being a butterfly than a butterfly." Wyatt Townley has written: "As we witness primates talking to each other in *our* language, it is we who may reluctantly learn who we are. And who *are* we? Evidently we are animals who exploit animals."

The researcher who chooses the path of total control must take responsibility if he suddenly finds himself depicted as a wolf with a Ph.d on his wall. Take the story of the two dolphins used by Hawaiian researcher, Lou Herman. Two grad students working in the Lab claimed that Herman was guilty of cruelty to animals. When they surreptitiously freed the dolphins back to the Pacific Ocean, Herman ended up declaring, almost as a tit for tat, that such highly trained animals could never survive in the wild. They may have been taught many things, but they had never been taught how to feed themselves. The students were arrested by police and tried as common thieves. One of the men was found guilty of stealing the research center's "property".

Circular, Transparent

There is a growing, alternative school of thought that believes the dream of interspecies communication is not only possible but, perhaps, even obvious. But members of this rising school hardly offer a unified front. The ideas they espouse run the gamut from traditional shamanism, animal rights, transpersonal psychology, and deep ecology to esoteric notions about channeling horses and the connection between dolphins and angels. These alternists do, however, hold several ideas in common. They are all involved in a common search to rediscover some modern equivalent to the ancient, sacred, and formerly universal worldview that once connected all human beings to a sentient environment. The alternists thus find common cause with the Gaia Hypothesis, especially its fundamental assertion that some, as yet understood communication mechanism between species and among species is and always has been the *modus operandi* of nature on planet Earth.

The alternists can not be pigeonholed as purloiners of a sloppy, or even a naive science. They are not unscientific, because they are, rather nonscientific. Simply put, their passion is not driven by data, but by experience and, perhaps, an ecological sense of community. This does not stop some alternists from promoting themselves as a kind of scientific avant garde, who regard their experiential approach as offering a viable alternative to the reductionist view of nature and all the exploitive scaffolding that supports it. Animals are not specimen to be held in captivity in the cause of adding another brick to the wall of our information culture.

If the medium is the message, then the laboratory *zeitgeist* induces a vocabulary of "capture, isolate, feed, control, probe" even as it emphasizes a training regimen of *yellow*, *hard*, and *round*. If that is what it means to speak to the animals, the alternists declare that it is better to say nothing at all. They would advance a more humble, communal message: "Here. Look at me. I'm a wild heart like you. Let us together honor the linkage."

The alternists believe that animals are wise beyond the systems of language we impose upon them. They are intelligent

beyond any training regimen, creative beyond the behavioral tricks we watch them perform in circuses and oceanariums. Jacques Cousteau, for just one example, writes of "diving with porpoises who played chasing games as if they had a capacity for satire." Accounts of the alternative view in action are, in fact, legion. It provides the impetus for much of the non-scientific writing about animals.

Proponents of the alternative school assert that there's communication...and then there's communication. The most sentient forms of communication–for instance Koko's fib–are both circular and transparent. It occurs when meaning is implicit and reflective between parties. In other words, when it's happening, really happening, both parties simply feel it. There are few if any yardsticks here. Transparent communication suffers when forced into the explicit straitjacket of measurement. An ability to communicate can not be so easily measured by the sheer number of words articulated by a parrot. Nor can sentience be measured by a dolphin's ability to examine a blemish in a mirror. These things can not be measured any more than creativity can be measured, any more than love can be measured.

Most cognitive scientists regard this alternative worldview characterized by its ideas of direct linkage, universal sentience, and transparency as reeking of anthropomorphism, which of course, offers ample grounds for repudiation. As might be expected, accusing an alternist of anthropomorphism carries none of the inquisitional weight it holds within the scientific establishment. How could it? The alternists view any accusation of attributing human characteristics to animals as too restrictive and too polarizing a view of animals. It upholds a decrepit dogma meant only to keep human beings above and separate from the rest of nature.

This is not meant to imply that alternists believe that wild deer talk like Bambi, or that wolves dress up like grandmothers to fool little girls. What the alternists assert is that transparent communication is nurtured best in an atmosphere of mutual respect. If relating to an animal with mutual respect means "attributing human characteristics to it", then so be it.

Tithing Request

We have a dire need for a laptop computer. We'll use it for field projects, boat work, and may occasionally backpack it into remote sites. So no clunkers please. We favor a well-designed notebook about 4½ pounds, with immense battery life. If a new one is offered, we'd love to include satellite Fax capability, and possibly a CD ROM drive as well.

But a used will do just fine, since we mostly need it for word-processing and database work. If you got a new one for Christmas, and would like to recycle the old one, please consider us. All donations are tax-deductible.

An account from an old Interspecies Newsletter, might be helpful. The waterholes of the Kalahari Desert have always served as a magnet for the people and many animals that inhabit that part of Africa. The Kalahari Bushman's oral history reveals many instances of tribes people being mauled, trampled, or impaled by just about every species living there. But nowhere in this millenia-old history is there a single account of either a lion killing a Bushman or a Bushman killing a lion. Western anthropologists visiting Bushman camps during the 1950's often made note of the glowing eyes of the lions clearly discerned just beyond the reach of the cooking fire. One white observer commented that when the lions started roaring, a Bushman hunter would simply saunter off to the edge of the camp and solicit the lions to keep the noise down because, "there are children trying to sleep." The lions seemed to heed the request. Somehow, both species had long ago developed a *protocol* for living at peace with one another.

The traditional Bushman lifestyle ended forever with the introduction of ranching into the Kalahari during the 1950's. The waterhole culture deteriorated to make way for Westernization, including such detritus of progress as the introduction of rifles, and a capitalist economic system that encouraged white homesteaders to raise cattle for money. Significantly, the Bushman/lion protocol of mutual respect was quickly replaced by mutual fear. Before the introduction of ranching, Bushmen and lions kept strict schedules about when to visit the waterholes to drink. Lions drank late at night, while Bushmen filled their gourds during the heat of the day. Newly- introduced cattle were oblivious to the schedule and appeared at the waterholes at all hours of the day and night. Observers commented that, at first, the lions actually seemed to keep their distance from the cattle, as if this new species was to be respected as a living "extension" of the human community. But the lions finally began to attack the easy prey. The ranchers, with help from their Bushmen hired hands, reciprocated by shooting lions. Within a few years time, several Bushmen had been killed by lions.

Field of Dreams

Physicist Max Planck once wrote that a new worldview does not triumph "by convincing its opponents...but rather because its opponents eventually die, and a new generation grows up that is familiar with it." Today, children learn at an early age that the prevailing "separate and not equal" worldview about nature is killing the planet and us along with it. The result is an ecological transformation slowly settling over all our lives, and affecting all aspects of culture. The alternist vision of interspecies communication might be understood as one conceptual prod to this revolution in progress.

Although the alternist's dictum is wildly revolutionary in its implications, it is exceedingly mild in practice. Ultimately, everything the alternists espouse springs from an insistence upon meeting the animals halfway. The most challenging aspect of this journey may be its preparation. Before we ever meet up with an animal, we first have to open up to that individual animal. In such a manner, it is communion rather than data that finally reveals itself as the basis of the alternist methodology. If we are transparent, they will come. It helps if the animal we

encounter is not already in permanent withdrawal from the human presence. That's one reason why this organization so often chooses the Arctic for its own field of dreams. It's a field less tainted.

It should be evident by now that IC is a champion of alternism. Since the mid-1970's, we have sponsored musical interactions with species including whales, deer, ravens, monkeys, frogs, wolves, dolphins, so forth. We tend to agree with philosopher Gregory Bateson who once wrote that most animal vocalizations are more akin to music than language. We at IC believe that trying to translate dolphin whistles into English—or even into a made up halfway language like John Lilly's apple computer-based *delphinese*—is a futile endeavor, not unlike trying to translate Beethoven into words and sentences.

The grammar of musical language is rich in both form and content. It expresses the physical and mathematical constructs of frequency, rhythm, amplitude, and harmony. It evokes a rich spectrum of emotion, instills a refined sensitivity to one's surroundings, and satisfies a Utopian longing for communion. We believe that animals already create melodies, harmonies and rhythms to express elation, fear, horniness, immortality, vulnerability, genetics, poetry, motherly affection, a sense of place. Not to mention music.

I am the first to admit I don't always know what kind of communication it is I am achieving, or if it is communication as that term is scientifically defined. I do know, however, that most animals I have observed enjoy a rich play experience. Play is rewarding in and of itself. Who would deny that the human endeavor of making music or art is an adult form of play. It expresses the mindful language of creativity. If biologists are just now willing to admit that many animals also play, why is it such a big leap to imagine that they also play with their minds?

Whatever the answer, very few cognitive scientists or whale biologists are willing to acknowledge the validity of our own version of interspecies communication focusing on music, touch, play, and neighborliness. In the State of Washington where we reside, there is a large orca population. Yet we have never played music with the orcas who frequent the waters just a few miles from our office. I have been told countless times that the bureaucrats who issue permits for getting close to marine mammals in the USA would never issue a permit to me although they often issue permits to .Phds involved in studies in which motor boats constantly zoom up on the whales. An outboard motor generates far more noise into the water than any sound we could ever make through an underwater speaker. The conclusion is obvious: US permit givers endorse invasive tactics if undertaken by a .Phd, while they forbid any creative interaction whatsoever by artists. For that reason, we have always found our whales in other countries, especially Canada, where the permit process is minimal, and less bound to good old boy ideas of what constitutes valid research.

At this point, we do not expect anything to change. To acknowledge the idea of playing music with whales, one must also recognize that the definition of animals as objects and pecimen no longer makes sense. The interspecies vision respects orcas, beluga whales, wolves, and even turkeys and frogs are respected as creative musicians, improvizers, totem. And our critics rebut that we claim the animals to be Miles Davis in animal suits. It is not true. The animals remain as we experience them: as orcas, beluga whales, wolves, turkeys, frogs.

Obviously, that experience provides a very a different view of nature than the one that contemporary biology upholds. It explains why I personally find a certain trickster's appeal to the everpresent element of heresy in this work. I sometimes measure success in this elusive venture by the skills I gain mining for irony in the quarry of conceptual art. One of the ongoing ironies is the fact that the work of IC so easily eludes categorization. We are considered neither here nor there in the professional world of interspecies research. I am certainly not a biologist. Not a cognitive scientist. Not even a naturalist, nor a newager. Not an animal rightist. The National Endowment for the Arts once rejected an IC proposal for recording music with orcas because we were unable to enclose a written score beforehand. Too far out. Not quite music.

We at IC agree with the Australian Aborigines who tell us that nature was, is, and will be sung into existence. It doesn't seem to matter very much that no one can say precisely what that means cause-and-effect-wise, or whether the tune had a good beat and you could dance to it, or whether capitol G God sang it or was it just some gnarly old lizard.

Once, traveling in Australia, I heard a rumor that an elder with wide brown feet who lived a thousand miles into the desert, was reputed to be the only living person who still remembered the original tune. As the story went, some woman walked alone for a week across the desert. When she arrived at the old man's lean-to, he smiled brightly into her face and informed her he had recently stopped singing the song because he discovered a neighbor who did a much better job of it. "That lizard over there. Oh my, he sings it so beautifully," exclaimed the old man, pointing to a small striped reptile digging the red dirt for ants.

The woman sat down in front of the lizard for nearly an hour before gathering up the courage to ask the man what a silent lizard digging for silent ants really had to do with the song that created the world.

"All the better to hear you with, my dear," he answered with a sly grin.

To my mind, the scene in *Close Encounters*, when an advanced race of aliens arrives on Earth and then uses music and telepathy to connect with humanity seems like the only interspecies band in town worth joining.

May you too walk on water.

—Jim Nollman, December 1994